

REMARKS

Upon entry of this amendment, claims 1-19 are pending in the Application. The Specification has been amended, adding no new matter. No claims have been amended, canceled or added.

1. Rejection of claims 12-14 under 35 U.S.C. §112, second paragraph.

Claims 12-14 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner maintains that the recitations “complementary” are considered indefinite because the recited term is not defined in the specification. The Examiner further alleges that Applicants’ specification still fails to provide an accurate meaning for the claimed “complementary” feature (7/17/2007 Office Action, page 2, final paragraph.)

While Applicants maintain that complementary is not indefinite as argued in a previous amendment, in order to expedite prosecution, the Specification has been amended to disclose that a functional group which is “complementary” to another group refers to a functional group which is chemically reactive with said group.

No new matter is introduced by this amendment, since the application as a whole and the Examples in particular teach this aspect of the invention. See *Acme Highway Prods. Corp. v. D. S. Brown Co.*, 431 F.2d 1074, 1080 (6th Cir.1970), *cert. denied*, 401 U.S. 956 (1971), *citing Cincinnati Rubber Mfg. Co. v. Stowe-Woodward, Inc.*, 111 F.2d 239, 242 (6th Cir.1940) (Added subject matter is not new matter when it is “something that might fairly be deduced from the original application.”). Under the *Acme Highway* doctrine of inherency, continuity of disclosure is not broken by making explicit structural and operational disclosures so long as they were implicit or inherent in the parent application. The test for inherency is whether a person skilled in the relevant art, reading a parent application, would have found the disclosures in question to be inherent in the disclosures of the parent and would not have to undertake any independent experimentation in order to do so. *Acme Highway, supra*, 431 F.2d at 1080.

It is implicit throughout the Specification that “complementary” to refers to “chemically reactive” with. Referring to paragraph [0052], for example, Applicants

disclose that “the oligomers and polymers (A) may contain further reactive functional groups which are able to undergo crosslinking reactions with complementary reactive functional groups other than those mentioned above.” Thus it is implicit that a complementary reactive functional group undergoes a crosslinking reaction (is chemically reactive) with a functional group. In addition, complementary groups are referred to as “complementary reactive functional groups” throughout the Specification. “Claim limitations must be supported in the specification through express, implicit, or inherent disclosure”. *In re Oda*, 443 F.2d 1200, 170 USPQ 268 (CCPA 1971). Since the recitation “complementary” is supported implicitly in the disclosure, then the amendment adds no new matter because it renders explicit that which was implicit, and as such is permitted.

Further, the meaning of every term used in a claim should be apparent from the prior art or from the specification and drawings at the time the application is filed. *Emphasis added, In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Prater*, 415 F.2d 1393, 162 USPQ 541 (CCPA 1969). The term “complementary” is widely used in the prior art as discussed in a previous office action. In fact, a search for phrases wherein the terms “complementary” and “group*” are present within the same sentence revealed 14,907 U.S. issued patents. See, for example, U.S. Patent No. 6,727,316 (hereafter ‘316) which was examined by Mr. David W. Wu, the instant Examiner’s supervisor. ‘316 claims at least one functional group (afg) which is able to undergo thermal crosslinking reactions with complementary functional groups (cfg) (‘316, claim 6,) yet there is no explicit definition in the specification that “complementary” refers to “reactive with.”

The first sentence of the second paragraph of Section 112 is a requirement for precision and definiteness of claim language. In view of the foregoing, it is respectfully submitted that the scope of Applicants’ pending claims are clear to those of skill in the art in view of Applicants’ amended Specification.

For example, if the scope of subject matter embraced by a claim is clear and if the applicant has not otherwise indicated that he intends the claim to be of a different scope, then the claim particularly points out and distinctly claims the subject matter that the applicant regards as his invention. *In re Borkowski et al.*, 164 U.S.P.Q. 642,

(C.C.P.A. 1970). Moreover, definiteness of claim language must be analyzed, not in a vacuum, but in light of (1) the content of the particular application disclosure, (2) the teachings of the prior art, and (3) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. See, e.g., *In re Marosi*, 710 F.2d 799, 218 U.S.P.Q. 289 (Fed. Cir. 1983); *Rosemount, Inc. v. Beckman Instruments, Inc.*, 727 F.2d 1540, 221 U.S.P.Q. 1 (Fed. Cir. 1984); *W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303 (Fed. Cir. 1983).

Accordingly, it is respectfully submitted that the pending claims satisfy the requirements of 35 U.S.C. §112, second paragraph. In view of the above, Applicants respectfully request the withdrawal of the rejection under 35 U.S.C. §112, second paragraph.

2. Rejection of claims 1-19 under 35 U.S.C. §102(e) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 7,056,522 to Voris et al., hereafter "Voris".

Applicants respectfully assert that the rejection under 35 U.S.C §102(e)/103(a) over Voris is moot because Voris is not available as prior art under 35 U.S.C §102(e). The instant Application claims priority to PCT/EP02/04477 filed on April 24, 2002. Voris was published on July 4, 2002, and issued June 6, 2006. Voris is not an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, nor is Voris a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, as set forth by 35 U.S.C §102(e). Voris is a Continuation-in-Part of U.S. Patent No. 6,322,803 filed on July 3, 1999, hereafter "the Parent". However, the critical date of Voris cannot be carried back to the filing date of the Parent because the Parent does not support the claimed invention in Voris as required by 35 U.S.C. §112, first paragraph (MPEP 2136.03(IV).) "For if a patent could not theoretically have issued the day the application was filed, it is not entitled to be used against another as 'secret prior art'" under 35 U.S.C. §102(e). *In re Wertheim*, 646 F.2d 527, 537, 209 USPQ 554, 564 (CCPA 1981). Applicants respectfully assert that Voris could not theoretically have

issued the day the Parent was filed because there is no antecedent basis for Voris' claimed invention as a whole in the Parent. Thus, Voris is not available as prior art under 35 U.S.C §102(e), rendering this rejection moot. Withdrawal of the rejection is respectfully requested.

If Voris were available as prior art under 35 U.S.C §102(e), which Applicants dispute, Applicants respectfully assert that the instant claims are patentable over Voris under 35 U.S.C §102(e)/103(a) in light of the remarks filed on April 18, 2007, which are incorporated herein by reference. Specifically, Voris does not teach or suggest all the elements of independent claim 1.

Regarding the rejection under 35 U.S.C. §102(e)

The Examiner states:

“Regarding applicants’ argument that Voris et al. teach allophanate as one of six possible types of crosslinking, and Voris et al. do not teach a mixture containing allophanate groups comprising both (A) at least one oligomer and/or polymer containing at least one allophanate group or contains one carbamate group or contains one carbamate group and at least one allophanate group, and (B) at least one thixotropic agent comprising a urea or a urea derivative prepared by reacting at least one amine and/or water with at least one polyisocyanate, the examiner disagrees because Voris et al. (col. 10, line 3-4) teach a system comprising six types of crosslinks, not six possible type of crosslinks. Regarding the claimed “mixture” feature, applicants must recognize that a polyurethane resin is inherently a mixture. Regarding the claimed “thixotropic agent”, it is merely a recitation of the intended use of the feature taught in Voris et al. (col. 10, line 48-61). Applicants must recognize that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.”

(7/17/2007 Office Action, page 5, final paragraph.)

Applicants must respectfully disagree. In particular, Applicants respectfully address the Examiner's assertion that Voris teaches a system comprising six types of

crosslinks, which Applicants dispute, and not six possible types of crosslinks, which Applicants assert.

The Examiner cites Voris, column 10, lines 3-4, as teaching “a system comprising six types of crosslinks.” However, Voris discloses the following:

“There are six types of crosslinks, some of which can be broken under stress and re-formed.”

(Voris, column 10, lines 3-4.)

When reading Voris in its entirety it can be seen that Voris does not teach that the system comprises all six types of crosslinks as asserted by the Examiner, but only that there are six types of crosslinks. The U.S. Court of Appeals for the Federal Circuit has consistently held that one must consider both the invention and the prior art “as a whole”, not from improper hindsight gained from consideration of the claimed invention. See, *Interconnect Planning Corp. v. Feil*, 227 U.S.P.Q. 543, 551 (Fed. Cir. 1985) and cases cited therein. Applicants respectfully assert that the Examiner did not consider the prior art “as a whole”. If considered “as a whole”, Voris teaches the following regarding the hard segments of the polymer chain:

“The hard segments of the polymer chain are crystalline or crosslinked. They resist permeation by water and oxygen. This barrier attribute contributes to the longevity of the product. The barrier attribute applies also to the active ingredient so that the release rate is reduced by the presence of hard segments.”

(column 9, lines 56-61.)

“The hard segments also contribute to the rigidity of the product. Because some flexibility is needed, an upper limit is set for the percentage of hard segments.”

(column 10, lines 1-3.)

After disclosing the hard segments, and disclosing that the hard segments are crystalline or crosslinked, Voris then discloses six possible ways to form said crosslinks in the polymer chain (column 10, line 6-column 11, line 3.) This is affirmed by Voris' claim 11 which teaches:

“The coating composition of claim 9, wherein said polyurethane polymer contains hard segments made by one or more of; the use of polyisocyanates having greater than 2 isocyanate groups per molecule; use of polyol having a molecular weight of less than

about 1,000 and greater than 2 hydroxyl groups per molecule; an excess of isocyanate is used; or reaction of said isocyanate with an amine.”

(emphasis added, Voris, claim 11.)

Thus, Applicants respectfully assert that Voris does not teach a system comprising six types of crosslinks as alleged by the Examiner, but six possible ways of forming crosslinks, four of which can be used alone or in combination as evidenced by claim 11, and not six of them together.

In order to anticipate, a piece of prior art must clearly and unequivocally disclose the claimed composition or direct those skilled in the art to the composition without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference. *In re Arkley*, 59 CCPA 804, 455 F.2d 586, *Air Products & Chemicals, Inc. v. Chas. S. Tanner Co.* 219 USPQ 223, *Perricone v. Medicis Pharmaceutical Corp.*, 267 F.Supp.2d 229. Applicants respectfully assert that Voris does not direct one skilled in the art to choose at least one oligomer and/or polymer that contains at least one allophanate group or contains at least one carbamate group and at least one allophanate group, and at least one thixotropic agent comprising a urea or a urea derivative.

Further, Applicants respectfully assert that Voris does not teach a mixture comprising two components, one being an oligomer and/or polymer, and the other being a thixotropic agent comprising a urea or a urea derivative, as per Applicants' independent claim 1.

Voris teaches a polyurethane system which comprises urea linkages within the polymer (Voris, column 4, lines 22-24,) and a polyurethane system made from aliphatic and alicyclic isocyanates which comprises hard segments that can be formed according to six types of crosslinking (Voris, column 9, line 24-column 11, line 52.) Voris does not teach a mixture of two components as instantly claimed.

The Examiner asserts that “regarding the claimed ‘mixture’ feature, applicants must recognize that a polyurethane resin is inherently a mixture.” In order to support an anticipation rejection based on inherency, an Examiner must provide factual and technical grounds establishing that the inherent feature necessarily flows from the

teachings of the prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Int. 1990); *In re Oelrich*, 666 F.2d 578, 581, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981).

No such factual and technical grounds are established by the Examiner regarding whether or not the polyurethanes disclosed by Voris comprise an oligomer and/or polymer that contains at least one allophanate group in addition to a thixotropic agent comprising a urea or urea derivative as required by independent claim 1.

Even assuming that the polyurethane of Voris is a mixture, Applicants respectfully assert that Voris fails to teach a thixotropic agent. Voris neither recognizes nor discusses thickening agents, particularly as a separate component of a composition. Without guidance at all with regard to thickening, Applicants are at a loss to understand how one of ordinary skill in the art would recognize a thickening agent from among the many teachings of a pest control patent such as Voris.

Concluding Remarks

Taken as a whole, Voris teaches a polyurethane polymer which comprises hard segments. The hard segments are crystalline or crosslinked. The crosslinked hard segments of Voris can be formed according to any of six types of crosslinking:

1. Use of isocyanates with functionality greater than 2;
2. Use of low molecular weight polyols with greater than 2 functionality;
3. Use of (higher molecular weight) polyols;
4. Formation of allophanate linkages;
5. Reaction between urea groups and isocyanates; or
6. Hydrogen bonding.

Applicants' independent claim 1, on the other hand, recites a composition comprising an oligomer and/or polymer that contains an allophanate group or contains a carbamate group and an allophanate group; and a thixotropic agent comprising a urea or a urea derivative.

Applicants' independent claim 1 is not anticipated by Voris, because Voris does not teach or suggest every element of Applicants' claim. There is no teaching in Voris for a composition which comprises both required elements of Applicants' independent claim 1, that is, Voris does not teach or suggest a composition which comprises both an

oligomer and/or polymer which comprises allophanate groups (or carbamate and allophanate groups), and a thixotropic agent (B) which comprises urea or urea derivatives. Voris only teaches a polyurethane polymer which can be crosslinked using any of six possibilities, one of them being crosslinking between urea groups and isocyanate groups, and one being formation of carbamate linkages between different polymeric chains.

For at least the above reasons, Applicants respectfully assert that independent claim 1, and consequently claims 2-19 which depend from claim 1, are patentable over Voris under 35 U.S.C. §102(e), which is further rendered moot because Voris is not available as prior art under 35 U.S.C. §102(e) as discussed above. Reconsideration and withdrawal of the rejection is respectfully requested.

Regarding the rejection under 35 U.S.C. §103(a)

Applicants respectfully assert that the instant claims are patentable over Voris under 35 U.S.C. §103(a) because Voris fails to teach or suggest every element of independent claim 1. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).

As discussed above, Voris only teaches possible ways of crosslinking a polyurethane polymer, and does not teach a composition comprising two components, one being an oligomer and/or polymer comprising an allophanate group, and one being a thixotropic agent comprising a urea or a urea derivative. There would be no suggestion or motivation for someone skilled in the art at the time the invention was made to modify Voris to arrive at independent claim 1. Regarding the Examiner's assertion that "applicants must recognize that a polyurethane resin is inherently a mixture," Applicants respectfully submit that the theory of inherency is normally reserved for rejections under 35 U.S.C. §102. *In re Grasselli*, 318 U.S.P.Q. 303 (Fed. Cir. 1983).

As such, Applicants respectfully assert that independent claim 1, and consequently claims 2-19 which depend from claim 1, are patentable over Voris under 35 U.S.C. §103(a), which is further rendered moot because Voris is not available as

prior art under 35 U.S.C. §102(e) as discussed above. Reconsideration and withdrawal of the rejection are respectfully requested.

CONCLUSION

Applicants respectfully submit that the Application and pending claims are patentable in view of the foregoing remarks. A Notice of Allowance is respectfully requested. As always, the Examiner is encouraged to contact the Undersigned by telephone if direct conversation would be helpful.

Respectfully Submitted,

/MaryEGolota/
Mary E. Golota
Registration No. 36,814
Cantor Colburn LLP
(248) 524-2300

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CORRESPONDENCE ADDRESS ONLY

BASF CORPORATION
1609 Biddle Avenue
WYANDOTTE, MI 48192
Customer No. 26922

MEG/IK